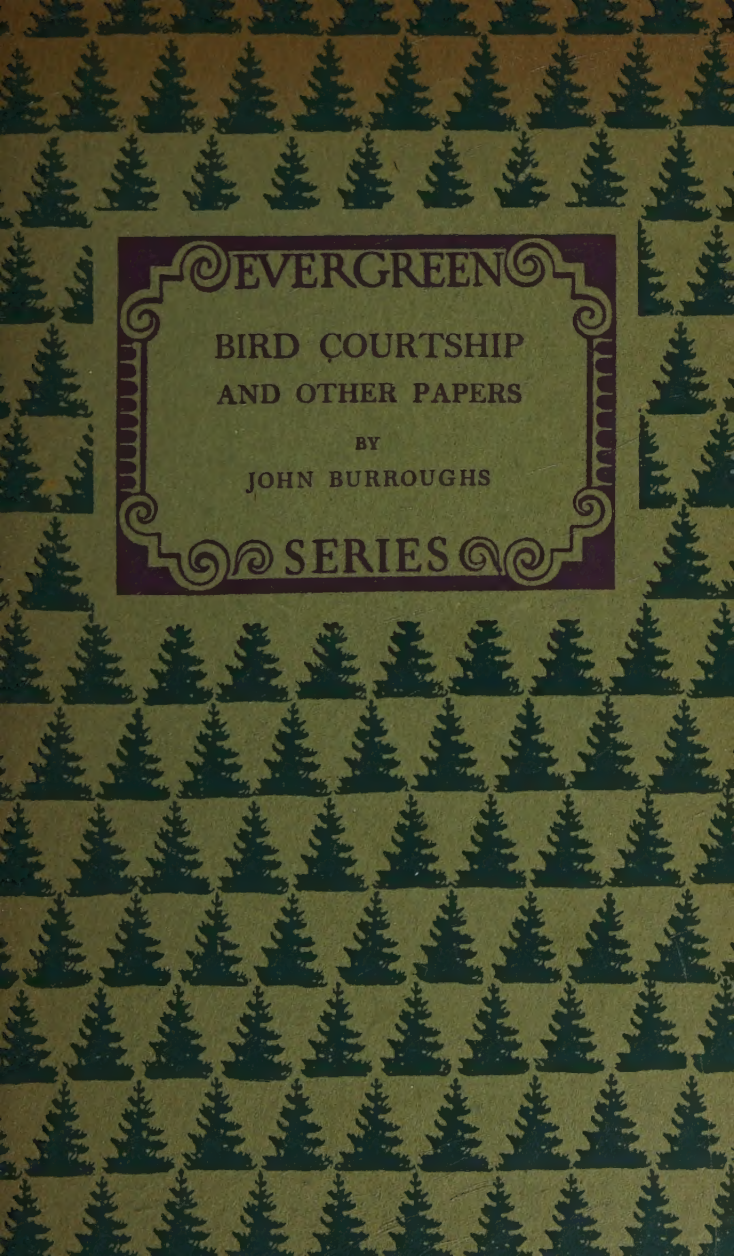




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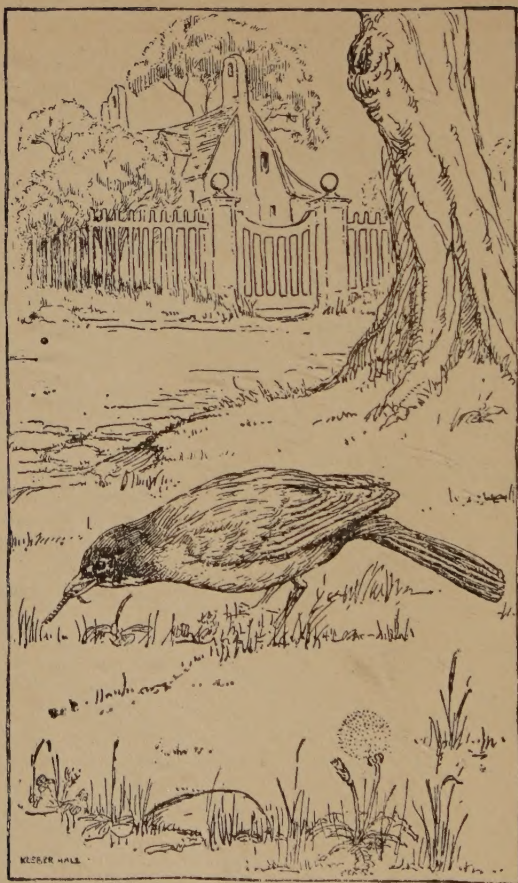
BIRD COURTSHIP
AND OTHER PAPERS

BY

JOHN BURROUGHS

SERIES

Christina Dean



The Evergreen Series

BIRD COURTSHIP AND OTHER PAPERS

BY
JOHN BURROUGHS



BOSTON AND NEW YORK
HOUGHTON MIFFLIN COMPANY

The Riverside Press Cambridge

1923

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CAMBRIDGE . MASSACHUSETTS

PRINTED IN THE U.S.A.

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BIRD COURTSHIP

BIRD COURTSHIP

THERE is something about the match-making of birds that is not easily penetrated. The jealousies and rivalries of the males and of the females are easily understood, — they are quite human; but those sudden rushes of several males, some of them already mated, after one female, with squeals and screams and a great clatter of wings, — what does it mean? There is nothing human about that, unless it be illustrative of a trait that has at times cropped out in the earlier races, and which is still seen among the Eskimos, where the male carries off the female by force. But in these sudden sallies among the birds, the female, so far as I have observed, is never carried off. One may see half a dozen English sparrows engaged in what at first glance appears to be a general *mêlée* in the gutter or on the sidewalk; but if you

look more closely, you will see a single female in the midst of the mass, beating off the males, who, with plumage puffed out and screaming and chattering, are all making a set at her. She strikes right and left, and seems to be equally displeased with them all. But her anger may be all put on, and she may be giving the wink all the time to her favorite. The Eskimo maiden is said by Doctor Nansen to resist stoutly being carried off even by the man she is desperately in love with.

In the latter half of April, we pass through what I call the "robin racket," — trains of three or four birds rushing pell-mell over the lawn and fetching up in a tree or bush, or occasionally upon the ground, all piping and screaming at the top of their voices, but whether in mirth or anger it is hard to tell. The nucleus of the train is a female. One cannot see that the males in pursuit of her are rivals; it seems rather as if they had united to hustle her out of the place.

But somehow the matches are no doubt made and sealed during these mad rushes. Maybe the female shouts out to her suitors, "Who touches me first wins," and away she scurries like an arrow. The males shout out, "Agreed!" and away they go in pursuit, each trying to outdo the other. The game is a brief one. Before one can get the clew to it, the party has dispersed.

Earlier in the season the pretty sparing of the males is the chief feature. You may see two robins apparently taking a walk or a run together over the sward or along the road; only first one bird runs, and then the other. They keep a few feet apart, stand very erect and the course of each describes the segment of an arc about the other, thus:—



How courtly and deferential their manners toward each other are! often they pipe a shrill, fine strain, audible only a few yards away. Then, in a twinkling,

one makes a spring and they are beak to beak, and claw to claw, as they rise up a few feet into the air. But usually no blow is delivered; not a feather is ruffled; each, I suppose, finds the guard of the other perfect. Then they settle down upon the ground again, and go through with the same running challenge as before. How their breasts glow in the strong April sunlight; how perk and military the bearing of each! Often they will run about each other in this way for many rods. After a week or so the males seem to have fought all their duels, when the rush and racket I have already described begins.

The bluebird wins his mate by the ardor of his attentions and the sincerity of his compliments, and by finding a house ready built which cannot be surpassed. The male bluebird is usually here several days before the female, and he sounds forth his note as loudly and eloquently as he can till she appears. On her appearance he flies at once to the

box or tree cavity upon which he has had his eye, and, as he looks into it, calls and warbles in his most persuasive tones. The female at such times is always shy and backward, and the contrast in the manners of the two birds is as striking as the contrast in their colors. The male is brilliant and ardent; the female is dim and retiring, not to say indifferent. She may take a hasty peep into the hole in the box or tree and then fly away, uttering a lonesome, homesick note. Only by a wooing of many days is she to be fully won.

The past April I was witness one Sunday morning to the jealousies that may rage in these little brown breasts. A pair of bluebirds had apparently mated and decided to occupy a woodpecker's lodge in the limb of an old apple tree near my study. But that morning another male appeared on the scene, and was bent on cutting the first male out, and carrying off his bride. I happened to be near by when the two birds came

into collision. They fell to the grass, and kept their grip upon each other for half a minute. Then they separated, and the first up flew to the hole and called fondly to the female. This was too much for the other male, and they clinched again and fell to the ground as before. There they lay upon the grass, blue and brown intermingled. But not a feather was tweaked out, or even disturbed, that I could see. They simply held each other down. Then they separated again, and again rushed upon each other. The battle raged for about fifteen minutes, when one of the males — which one, of course, I could not tell — withdrew and flew to a box under the eaves of the study and exerted all the eloquence he possessed to induce the female to come to him there. How he warbled and called, and lifted his wings and flew to the entrance to the box and called again! The female was evidently strongly attracted; she would respond and fly about halfway to an apple-tree, and look toward him.

The other male, in the mean time, did his best to persuade her to cast her lot with him. He followed her to the tree toward his rival, and then flew back to the nest, and spread his plumage and called and warbled, oh, so confidently, so fondly, so reassuringly! When the female would return and peep into the hole in the tree, what fine, joyous notes he would utter! then he would look in and twinkle his wings, and say something his rival could not hear. This vocal and pantomimic contest went on for a long time. The female was evidently greatly shaken in her allegiance to the male in the old apple-tree. In less than an hour another female responded to the male who had sought the eaves of the study, and flew with him to the box. Whether this was their first meeting or not I do not know, but it was clear enough that the heart of the male was fixed upon the bride of his rival. He would devote himself a moment to the new-comer, and then turn toward the old apple-tree and

call and lift his wings; then, apparently admonished by the bird near him, he would turn again to her and induce her to look into the box, and would warble fondly; then up on a higher branch again, with his attention directed toward his first love, between whom and himself salutations seemed constantly passing. This little play went on for some time, when the two females came into collision, and fell to the ground tweaking each other spitefully. Then the four birds drifted away from me down into the vineyard, where the males closed with each other again and fell to the plowed ground and lay there a surprisingly long time, nearly two minutes, as we calculated. Their wings were outspread, and their forms were indistinguishable. They tugged at each other most doggedly; one or the other brown breast was generally turned up, partly overlaid by a blue coat. They were determined to make a finish of it this time, but which got the better of the fight I

could not tell. But it was the last battle; they finally separated, neither, apparently, any the worse for the encounter. The females fought two more rounds, the males looking on and warbling approvingly when they separated, and the two pairs drifted away in different directions. The next day they were about the box and tree again, and seemed to have definitely settled matters. Who won and who lost I do not know, but two pairs of bluebirds have since been very busy and very happy about the two nesting-places. One of the males I recognize as a bird that appeared early in March; I recognize him from one peculiar note in the midst of his warble, a note that suggests a whistle.

The matchmaking of the high-holes, which often comes under my observation, is in marked contrast to that of the robins and the bluebirds. There does not appear to be any anger or any blows. The male or two males will alight on a limb in front of the female, and go

through with a series of bowings and scrapings that are truly comical. He spreads his tail, he puffs out his breast, he throws back his head, and then bends his body to the right and to the left, uttering all the while a curious musical hiccough. The female confronts him unmoved, but whether her attitude is critical or defensive, I cannot tell. Presently she flies away, followed by her suitor or suitors, and the little comedy is enacted on another stump or tree. Among all the woodpeckers the drum plays an important part in the matchmaking. The male takes up his stand on a dry, resonant limb, or on the ridgeboard of a building, and beats the loudest call he is capable of. The downy woodpecker usually has a particular branch to which he resorts for advertising his matrimonial wants. A favorite drum of the high-holes about me is a hollow wooden tube, a section of a pump, which stands as a bird-box upon my summer-house. It is a good instrument; its tone is sharp and clear. A

high-hole alights upon it, and sends forth a rattle that can be heard a long way off. Then he lifts up his head and utters that long April call, *Wick, wick, wick, wick*. Then he drums again. If the female does not find him, it is not because he does not make noise enough. But his sounds are all welcome to the ear. They are simple and primitive, and voice well a certain sentiment of the April days. As I write these lines I hear through the half-open door his call come up from a distant field. Then I hear the steady hammering of one that has been for three days trying to penetrate the weather boarding of the big icehouse by the river, and to reach the sawdust filling for a nesting-place.

Among our familiar birds the match-making of none other is quite so pretty as that of the goldfinch. The goldfinches stay with us in loose flocks and clad in a dull-olive suit throughout the winter. In May the males begin to put on their bright summer plumage. This is the

result of a kind of superficial moulting. Their feathers are not shed, but their dusky covering or overalls are cast off. When the process is only partly completed, the bird has a smutty, unpresentable appearance. But we seldom see them at such times. They seem to retire from society. When the change is complete, and the males have got their bright uniforms of yellow and black, the courting begins. All the goldfinches of a neighborhood collect together and hold a sort of musical festival. To the number of many dozens they may be seen in some large tree, all singing and calling in the most joyous and vivacious manner. The males sing, and the females chirp and call. Whether there is actual competition on a trial of musical abilities of the males before the females or not, I do not know. The best of feeling seems to pervade the company; there is no sign of quarreling or fighting; "all goes merry as a marriage bell," and the matches seem actually to be made during these

musical picnics. Before May is passed the birds are seen in couples, and in June housekeeping usually begins. This I call the ideal of love-making among birds, and is in striking contrast to the squabbles and jealousies of most of our songsters.

I have known the goldfinches to keep up this musical and love-making festival through three consecutive days of a cold northeast rainstorm. Bedraggled, but ardent and happy, the birds were not to be dispersed by wind or weather.

All the woodpeckers, so far as I have observed, drum up their mates; the male advertises his wants by hammering upon a dry, resonant limb, when in due time the female approaches and is duly courted and won. The drumming of the ruffed grouse is for the same purpose; the female hears, concludes to take a walk that way, approaches timidly, is seen and admired, and the match is made. That the male accepts the first female that offers herself is probable. Among

all the birds the choice, the selection, seems to belong to the female. The males court promiscuously; the females choose discreetly. The grouse, unlike the woodpecker, always carries his drum with him, which is his own proud breast; yet, if undisturbed, he selects some particular log or rock in the woods from which to sound forth his willingness to wed. What determines the choice of the female it would be hard to say. Among song-birds, it is probably the best songster, or the one whose voice suits her taste best. Among birds of bright plumage, it is probably the gayest dress; among the drummers, she is doubtless drawn by some quality of the sound. Our ears and eyes are too coarse to note any differences in these things, but doubtless the birds themselves note differences.

Birds show many more human traits than do quadrupeds. That they actually fall in love admits of no doubt; that there is a period of courtship, during which the male uses all the arts he is capable of

to win his mate, is equally certain; that there are jealousies and rivalries, and that the peace of families is often rudely disturbed by outside males or females is a common observation. The females, when they come to blows, fight much more spitefully and recklessly than do the males. One species of bird has been known to care for the young of another species which had been made orphans. The male turkey will sometimes cover the eggs of his mate and hatch and rear the brood alone. Altogether, birds often present some marked resemblances in their actions to men, when love is the motive.

Mrs. Martin, in her "Home Life on an Ostrich Farm," relates this curious incident:

"One undutiful hen — having apparently imbibed advanced notions — absolutely refused to sit at all, and the poor husband, determined not to be disappointed of his little family, did all the work himself, sitting bravely and

patiently day and night, though nearly dead with exhaustion, till the chicks were hatched out. The next time this pair of birds had a nest, the cock's mind was firmly made up that he would stand no more nonsense. He fought the hen [kicked her], giving her so severe a thrashing that she was all but killed, and this Petruchio-like treatment had the desired effect, for the wife never again rebelled, but sat submissively."

In the case of another pair of ostriches of which Mrs. Martin tells, the female was accidentally killed, when the male mourned her loss for over two years, and would not look at another female. He wandered up and down, up and down, the length of his camp, utterly disconsolate. At last he mated again with a most magnificent hen, who ruled him tyrannically; he became the most hen-pecked, or rather hen-kicked, of husbands.

BIRD LIFE IN WINTER

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THE distribution of our birds over the country in summer is like that of the people, quite uniform. Every wood and field has its quota, and no place so barren but it has some bird to visit it. One knows where to look for sparrows and thrushes and bobolinks and warblers and flycatchers. But the occupation of the country by our winter residents is like the Indian occupation of the land. They are found in little bands, a few here and there, with large tracts quite untenanted.

One may walk for hours through the winter woods and not see or hear a bird. Then he may come upon a troop of chickadees, with a nuthatch or two in their wake, and maybe a downy woodpecker. Birds not of a feather flock together at this inclement season. The question of food is always an urgent one. Evidently the nuthatch thinks there must be

food where the chickadees flit and call so cheerily, and the woodpecker is probably drawn to the nuthatch for a similar reason.

Together they make a pretty thorough search, — fine, finer, finest. The chickadee explores the twigs and smaller branches; what he gets is on the surface, and so fine as to be almost microscopic. The nuthatch explores the trunks and larger branches of the tree; he goes a little deeper, into crevices of the bark and under lichens. Then comes Downy, who goes deeper still. He bores for larger game through the bark, and into the trunks and branches themselves.

In late fall this band is often joined by the golden-crowned kinglet and the brown creeper. The kinglet is finer-eyed and finer-billed than even the chickadee, and no doubt gathers what the latter overlooks, while the brown creeper, with his long, slender, curved bill, takes what both the nuthatch and the woodpecker miss. Working together, it seems as if

they must make a pretty clean sweep. But the trees are numerous and large, and the birds are few. Only a mere fraction of tree surface is searched over at any one time. In large forests probably only a mere fraction of the trees are visited at all.

One cold day in midwinter, when I was walking through the snowless woods, I saw chickadees, nuthatches, and woodpeckers upon the ground, and upon roots and fallen branches. They were looking for the game that had fallen, as a boy looks for apples under the tree.

The winter wren is so called because he sometimes braves our northern winters, but it is rarely that one sees him at this season. I think I have seen him only two or three times in winter in my life. The event of one long walk, recently, in February, was seeing one of these birds. As I followed a byroad, beside a little creek in the edge of a wood, my eye caught a glimpse of a small brown bird darting under a stone bridge. I thought

to myself no bird but a wren would take refuge under so small a bridge as that. I stepped down upon it and expected to see the bird dart out at the upper end. As it did not appear, I scrutinized the bank of the little run, covered with logs and brush, a few rods farther up.

Presently I saw the wren curtsying and gesticulating beneath an old log. As I approached he disappeared beneath some loose stones in the bank, then came out again and took another peep at me, then fidgeted about for a moment and disappeared again, running in and out of the holes and recesses and beneath the rubbish like a mouse or a chipmunk. The winter wren may always be known by these squatting, bobbing-out-and-in habits.

As I sought a still closer view of him, he flitted stealthily a few yards up the run and disappeared beneath a small plank bridge near a house.

I wondered what he could feed upon at such a time. There was a light skim

of snow upon the ground, and the weather was cold. The wren, so far as I know, is entirely an insect-feeder, and where can he find insects in midwinter in our climate? Probably by searching under bridges, under brush heaps, in holes and cavities in banks where the sun falls warm. In such places he may find dormant spiders and flies and other hibernating insects or their larvæ. We have a tiny, mosquito-like creature that comes forth in March or in midwinter, as soon as the temperature is a little above freezing. One may see them performing their fantastic air-dances when the air is so chilly that one buttons his overcoat about him in his walk. They are darker than the mosquito, — a sort of dark water-color, — and are very frail to the touch. Maybe the wren knows the hiding-place of these insects.

With food in abundance, no doubt many more of our birds would brave the rigors of our winters. I have known a pair of bluebirds to brave them on such

poor rations as are afforded by the hardhack or sugarberry, — a drupe the size of a small pea, with a thin, sweet skin. Probably hardly one per cent of the drupe is digestible food. Bluebirds in December will also eat the berries of the poison ivy, as will the downy woodpecker.

Robins will pass the winter with us when the cover of a pine or hemlock forest can be had near a supply of red cedar berries. The cedar-bird probably finds little other food in the valley of the Hudson and in New England, yet I see occasional flocks of them every winter month.

Sometimes the chickadees and nut-hatches, hunting through the winter woods, make a discovery that brings every bird within hearing to the spot, — they spy out the screech owl hiding in the thick of a hemlock-tree. What an event it is in the day's experience! It sets the whole clan agog.

While I was walking in the December

woods, one day, my attention was attracted by a great hue and cry among these birds. I found them in and about a hemlock-tree, — eight or ten chickadees and four or five red-bellied nut-hatches. Such a chiding chorus of tiny voices I had not heard for a long time. The tone was not that of alarm so much as it was that of trouble and displeasure.

I gazed long and long up into the dark, dense green mass of the tree to make out the cause of all this excitement. The chickadees were clinging to the ends of the sprays, as usual, apparently very busy looking for food, and all the time uttering their shrill plaint. The nut-hatches perched about upon the branches or ran up and down the tree trunks, incessantly piping their displeasure. At last I made out the cause of the disturbance, — a little owl on a limb, looking down in wide-eyed intentness upon me. How annoyed he must have felt at all this hullabaloo, this lover of privacy and quiet, to have his name cried from the

treetops, and his retreat advertised to every passer-by!

I have never known woodpeckers to show any excitement at the presence of hawk or owl, probably because they are rarely preyed upon by these marauders. In their nests and in their winter quarters, deeply excavated in trunk or branch of tree, woodpeckers are beyond the reach of both beak and claw.

The day I saw the winter wren I saw two golden-crowned kinglets fly from one sycamore to another in an open field, uttering their fine call-notes. That so small a body can brave the giant cold of our winters seems remarkable enough. These are mainly birds of the evergreens, although at times they frequent the groves and the orchards.

How does the ruby-crowned kinglet know he has a brilliant bit of color on his crown which he can uncover at will, and that this has great charms for the female? During the rivalries of the males in the mating season, and in the autumn also,

they flash this brilliant ruby at each other. I witnessed what seemed to be a competitive display of this kind one evening in November. I was walking along the road, when my ear was attracted by the fine, shrill lisping and piping of a small band of these birds in an apple-tree. I paused to see what was the occasion of so much noise and bluster among these tiny bodies. There were four or five of them, all more or less excited, and two of them especially so. I think the excitement of the others was only a reflection of that of these two. These were hopping around each other, apparently peering down upon something beneath them. I suspected a cat concealed behind the wall, and so looked over, but there was nothing there. Observing them more closely, I saw that the two birds were entirely occupied with each other.

They behaved exactly as if they were comparing crowns, and each extolling his own. Their heads were bent forward, the

red crown patch uncovered and showing as a large, brilliant cap, their tails were spread, and the side feathers below the wings were fluffed out. They did not come to blows, but followed each other about amid the branches, uttering their thin, shrill notes and displaying their ruby crowns to the utmost. Evidently it was some sort of strife or dispute or rivalry that centred about this brilliant patch.

Few persons seem aware that the goldfinch is also a winter bird, — it is so brilliant and familiar in summer and so neutral and withdrawn in winter. The call-note and manner of flight do not change, but the color of the males and their habits are very different from their color and habits in summer. In winter they congregate in small, loose flocks, both sexes of a dusky yellowish brown, and feed upon the seeds of grasses and weeds that stand above the snow in fields and along fences.

Day after day I have observed a band

of five or six of them feeding amid the dry stalks of the evening primrose by the roadside. They are adepts in extracting the seed from the pods. How pretty their call to each other at such times, — *paisley* or *peasely*, with the rising inflection!

The only one of our winter birds that really seems a part of the winter, that seems to be born of the whirling snow, and to be happiest when storms drive thickest and coldest, is the snow bunting, the real snowbird, with plumage copied from the fields where the drifts hide all but the tops of the tallest weeds, — large spaces of pure white touched here and there with black and gray and brown. Its twittering call and chirrup coming out of the white obscurity is the sweetest and happiest of all winter bird sounds. It is like the laughter of children. The fox-hunter hears it on the snowy hills, the farmer hears it when he goes to fodder his cattle from the distant stack, the country schoolboy hears it as he breaks

his way through the drifts toward the school. It is ever a voice of good cheer and contentment.

One March, during a deep snow, a large flock of buntings stayed about my vineyards for several days, feeding upon the seeds of redroot and other weeds that stood above the snow. What boyhood associations their soft and cheery calls brought up! How plump and well-fed and hardy they looked, and how alert and suspicious they were! They evidently had had experiences with hawks and shrikes. Every minute or two they would all spring into the air as one bird, circle about for a moment, then alight upon the snow again. Occasionally one would perch upon a wire or grape-vine, as if to keep watch and ward.

Presently, while I stood in front of my study looking at them, a larger and darker bird came swiftly by me, flying low and straight toward the buntings. He shot beneath the trellises, and evidently hoped to surprise the birds. It

was a shrike, thirsting for blood or brains. But the buntings were on the alert, and were up in the air before the feathered assassin reached them. As the flock wheeled about, he joined them and flew along with them for some distance, but made no attempt to strike that I could see.

Presently he left them and perched upon the top of a near maple. The birds did not seem to fear him now, but swept past the treetop where he sat as if to challenge him to a race, and then went their way. I have seen it stated that these birds, when suddenly surprised by a hawk, will dive beneath the snow to escape him. They doubtless roost upon the ground, as do most ground-builders, and hence must often be covered by the falling snow.

A BIRDS' FREE LUNCH

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ONE winter, during four or five weeks of severe weather, several of our winter birds were pensioners upon my bounty, — three blue jays, two downy woodpeckers, three chickadees, and one kinglet, — and later a snowbird — junco — appeared.

I fastened pieces of suet and marrow-bones upon the tree in front of my window, then, as I sat at my desk, watched the birds at their free lunch. The jays bossed the woodpeckers, the woodpeckers bossed the chickadees, and the chickadees bossed the kinglet.

Sometimes in my absence a crow would swoop down and boss the whole crew and carry off the meat. The kinglet was the least of all, — a sort of “hop-o'-my thumb” bird. He became quite tame, and one day alighted upon my arm as I stood leaning against the tree. I could

have put my hand upon him several times. I wonder where the midget roosted. He was all alone. He liked the fare so well that he seemed disposed to stop till spring. During one terrible night of wind and snow and zero temperature I feared he would be swept away. I thought of him in the middle of the night, when the violence of the storm kept me from sleep. Imagine this solitary atom in feathers drifting about in the great arctic out-of-doors and managing to survive. I fancied him in one of my thick spruces, his head under his tiny wing, buffeted by wind and snow, his little black feet clinging to the perch, and wishing that morning would come.

The fat meat is fuel for him; it keeps up the supply of animal heat. None of the birds will eat lean meat; they want the clear fat. The jays alight upon it and peck away with great vigor, almost standing on tiptoe to get the proper sweep. The woodpecker uses his head alone in pecking, but the jay's action

involves the whole body. Yet his blows are softer, not so sharp and abrupt as those of the woodpecker. Pecking is not exactly his business.

He swallows the morsel eagerly, watching all the time lest some enemy surprise him in the act. Indeed, one noticeable thing about all the birds is their nervousness while eating. The chickadee turns that bead-like eye of his in all directions incessantly, lest something seize him while he is not looking. He is not off his guard for a moment. It is almost painful to observe the state of fear in which he lives. He will not keep his place upon the bone longer than a few seconds at a time lest he become a mark for some enemy,—a hawk, a shrike, or a cat. One would not think the food would digest when taken in such haste and trepidation.

While the jays are feeding, swallowing morsel after morsel very rapidly, the chickadees flit about in an anxious, peevish manner, lest there be none left for themselves.

I suspect the jays carry the food off and hide it, as they certainly do corn when I put it out for the hens. The jay has a capacious throat; he will lodge half a dozen or more kernels of corn in it, stretching his neck up as he takes them, to give them room, and then fly away to an old bird's-nest or a caterpillar's nest and deposit them in it. But in this respect the little kettle cannot call the big pot black. The chickadee also will carry away what it cannot eat. One day I dug a dozen or more white grubs — the larvæ of some beetle — out of a decayed maple on my woodpile and placed them upon my window-sill. The chickadees soon discovered them, and fell to carrying them off as fast as ever they could, distributing them among the branches of the Norway spruces. Among the grubs was one large white one half the size of one's little finger. One of the chickadees seized this; it was all he could carry, but he made off with it. The mate to this grub I found rolled up in a smooth

cell in a mass of decayed wood at the heart of the old maple referred to; it was full of frost. I carried it in by the fire, and the next day it was alive and apparently wanted to know what had brought spring so suddenly.

How rapidly birds live! Their demand for food is almost incessant. This colony of mine appear to feed every eight or ten minutes. Their little mills grind their grist very rapidly. Once in my walk upon the sea beach I encountered two small beach birds running up and down in the edge of the surf, keeping just in the thin, lace-like edging of the waves, and feeding upon the white, cricket-like hoppers that quickly buried themselves in the sand as the waters retreated. I kept company with the birds till they ceased to be afraid of me. They would feed eagerly for a few minutes and then stop, stand on one leg and put their heads under their wings for two or three minutes, and then resume their feeding, so rapidly did they digest their food. But all birds digest very rapidly.

My two woodpeckers seldom leave the tree upon which the food is placed. One is a male, as is shown by his red plume, and the other a female. There is not a bit of kindness or amity between them. Indeed, there is open hostility. The male will not allow the female even to look at the meat while he is feeding. She will sidle around toward it, edging nearer and nearer, when he will suddenly dart at her, and often pursue her till she leaves the tree. Every hour in the day I see him trying to drive her from the neighborhood. She stands in perpetual dread of him, and gives way the instant he approaches. He is a tyrant and a bully. They both pass the night in snug chambers which they have excavated in the decayed branch of an old apple-tree, but not together.

But in the spring what a change will come over the male. He will protest to the female that he was only in fun, that she took him far too seriously, that he had always cherished a liking for her.

Last April I saw a male trying his blandishments upon a female in this way. It may have been the same pair I am now observing. The female was extremely shy and reluctant; evidently she was skeptical of the sincerity of so sudden a change on the part of the male. I saw him pursue her from tree to tree with the most flattering attention. The flight of the woodpecker is at all times undulating, but on such occasions this feature is so enhanced and the whole action so affected and studied on the part of the male that the scene becomes highly amusing. The female flew down upon a low stump in the currant-patch and was very busy about her own affairs; the male followed, alighted on something several rods distant, and appeared to be equally busy about his affairs. Presently the female made quite a long flight to a tree by the roadside. I could not tell how the male knew she had flown and what course she had taken, as he was hidden from her amid the thick currant-

bushes; but he did know, and soon followed after in his curious exaggerated undulatory manner of flight. I have little doubt that his suit was finally successful.

I watch these woodpeckers daily to see if I can solve the mystery as to how they hop up and down the trunks and branches without falling away from them when they let go their hold. They come down a limb or trunk backward by a series of little hops, moving both feet together. If the limb is at an angle to the tree and they are on the under side of it, they do not fall away from it to get a new hold an inch or half inch farther down. They are held to it as steel to a magnet. Both tail and head are involved in the feat. At the instant of making the hop the head is thrown in and the tail thrown out, but the exact mechanics of it I cannot penetrate. Philosophers do not yet know how a backward-falling cat turns in the air, but turn she does. It may be that the woodpecker never quite

relaxes his hold, though to my eye he appears to do so.

Birds nearly always pass the night in such places as they select for their nests, — ground-builders upon the ground, tree-builders upon trees. I have seen an oriole ensconce himself for the night amid the thick cluster of leaves on the end of a maple branch, where soon after his mate built her nest.

My chickadees, true to this rule, pass the arctic winter nights in little cavities in the trunks of trees like the woodpeckers. One cold day, about four o'clock, while it was snowing and blowing, I heard, as I was unharnessing my horse near the old apple-tree, the sharp, chiding note of a chickadee. On looking for the bird I failed to see him. Suspecting the true cause of his sudden disappearance, I took a pole and touched a limb that had an opening in its end where the wrens had the past season had a nest. As I did so, out came the chickadee and scolded sharply. The storm and the cold

had driven him early to his chamber. The snow buntings are said to plunge into the snow-banks and pass the night there. We know the ruffed grouse does this.

BIRD-NESTING TIME

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THE other day I sat for an hour watching a pair of wood thrushes engaged in building their nest near "Slabsides." I say a pair, though the female really did all the work. The male hung around and was evidently an interested spectator of the proceeding. The mother bird was very busy bringing and placing the material, consisting mainly of dry maple leaves which the winter had made thin and soft, and which were strewn over the ground all about. How pretty she looked, running over the ground, now in shade, now in sunshine, searching for the leaves that were just to her fancy! Sometimes she would seize two or more and with a quick, soft flight bear them to the fork of the little maple sapling. Every five or six minutes during her absence, the male would come and inspect her work. He would look it over,

arrange a leaf or two with his beak, and then go his way. Twice he sat down in the nest and worked his feet and pressed it with his breast, as if shaping it. When the female found him there on her return, he quickly got out of her way.

But he brought no material, he did no needful thing, he was a bird of leisure. The female did all the drudgery, and with what an air of grace and ease she did it! So soft of wing, so trim of form, so pretty of pose, and so gentle in every movement! It was evidently no drudgery to her; the material was handy, and the task one of love. All the behavior of the wood thrush affects one like music; it is melody to the eye as the song is to the ear; it is visible harmony. This bird cannot do an ungraceful thing. It has the bearing of a bird of fine breeding. Its cousin the robin is much more masculine and plebeian, harsher in voice, and ruder in manners. The wood thrush is urban and suggests sylvan halls and courtly

companions. Softness, gentleness, composure, characterize every movement. In only a few instances among our birds does the male assist in nest-building. He is usually only a gratuitous superintendent of the work. The male oriole visits the half-finished structure of his mate, looks it over, tugs at the strings now and then as if to try them, and, I suppose, has his own opinion about the work, but I have never seen him actually lend a hand and bring a string or a hair. If I belonged to our sentimental school of nature writers I might say that he is too proud, that it is against the traditions of his race and family; but probably the truth is that he doesn't know how; that the nest-building instinct is less active in him than in his mate; that he is not impelled by the same necessity. It is easy to be seen how important it is that the nesting instinct should be strong in the female, whether it is or not in the male. The male may be cut off and yet the nest be built and the family reared.

Among the rodents I fancy the nest is always built by the female.

Whatever the explanation, the mother bird is really the head of the family; she is the most active in nest-building, and in most cases in the care of the young; and among birds of prey, as among insects, the female is the larger and the more powerful.

The wood thrush whose nest-building I have just described, laid only one egg, and an abnormal-looking egg at that — very long and both ends of the same size. But to my surprise out of the abnormal-looking egg came in due time a normal-looking chick which grew to birdhood without any mishaps. The late, cold season and the consequent scarcity of food was undoubtedly the cause of so small a family.

Another pair of wood thrushes built a nest on the low branch of a maple by the roadside, where I had it under daily observation. This nest presently held three eggs, two of which hatched in due

time, and for a few days the young seemed to prosper. Then one morning, I noticed the mother bird sitting in a silent, meditative way on the edge of the nest. As she made no move during the minute or two while I watched her, I drew near to see what was the matter. I found one of the young birds in a state of utter collapse; it was cold and all but lifeless. The next morning I found the bird again sitting motionless on the rim of the nest and gazing into it. I found one of the birds dead and the other nearly so. What had brought about the disaster I could not tell; no cause was apparent. I at first suspected vermin, but could detect none. The silent, baffled look of the mother bird I shall not soon forget. There was no demonstration of grief or alarm; only a brooding, puzzled look.

I once witnessed similar behavior on the part of a pair of bluebirds that were rearing a brood in a box on a grape post near my study. One day I chanced to observe one of the parent birds at the

entrance of the nest, gazing long and intently in. In the course of the day I saw this act several times, and in no case did the bird enter the box with food as it had been doing. Then I investigated and found the nearly fledged birds all dead. On removing them I found the nest infested with many dark, tough-skinned, very active worms or grubs nearly an inch long, that had apparently sucked the blood out of the bodies of the fledglings. They were probably the larvæ of some species of beetle unknown to me. The parent birds had looked on and seen their young destroyed, and made no effort to free the nest of their enemy. Or probably they had not suspected what was going on, or did not understand it if they beheld it. Their instincts were not on the alert for an enemy so subtle, and one springing up in the nest itself. Any visible danger from without alarmed them instantly, but here was a new foe that doubtless they had never before had to cope with.

The oriole in her nest-building seems more fickle than most other birds. I have known orioles several times to begin a nest and then leave it and go elsewhere. Last year one started a nest in an oak near my study, then after a few days of hesitating labor left it and selected the traditional site of her race, the pendent branch of an elm by the roadside. This time she behaved like a wise bird and came back for some of the material of the abandoned nest. She had attached a single piece of twine to the oak branch, and this she could not leave behind; twine was too useful and too hard to get. So I saw her tugging at this string till she loosened it, then flew toward the elm with it trailing in the air behind her. I could but smile at her thrift. The second nest she completed and occupied and doubtless found her pendent-nest instinct fully satisfied by the high swaying elm branch.

One of our prettiest nest-builders is the junco, or snowbird; in fact, it builds

the prettiest nest to be found upon the ground, I think — more massive and finely moulded and finished than that of the song sparrow. I find it only in the Catskills, or on their borders, often in a mossy bank by the roadside, in the woods, or on their threshold. With what delicate and consummate art it is insinuated into the wild scene, like some shy thing that grew there, visible, yet hidden by its perfect fitness and harmony with its surroundings. The mother bird darts out but a few yards from you as you drive or walk along, but your eye is baffled for some moments before you have her secret. Such a keen, feather-edged, not to say spiteful little body, with the emphasis of those two pairs of white quills in her tail given to every movement, and yet, a less crabbed, less hasty nest, softer and more suggestive of shy sylvan ways, than is hers, would be hard to find.

One day I was walking along the grassy borders of a beech and maple

wood with a friend when, as we came to a little low mound of moss and grass, scarcely a foot high, I said, "This is just the spot for a junco's nest," and as I stooped down to examine it, out flew the bird. I had divined better than I knew. What a pretty secret that little footstool of moss and grass-covered earth held! How exquisite the nest, how exquisite the place, how choice and harmonious the whole scene! How could these eggs long escape the prowling foxes, skunks, coons, the sharp-eyed crows, the searching mice and squirrels? They did not escape; in a day or two they were gone.

Another junco's nest beside a Catskill trout stream sticks in my memory. It was in an open grassy place amid the trees and bushes near the highway. There were ladies in our trouting party and I called them to come and see the treasure I had found.

"Where is it?" one of them said, as she stopped and looked around a few paces from me.

“It is within six feet of you,” I replied. She looked about, incredulous, as it seemed an unlikely place for a nest of any sort, so open was it, and so easily swept by the first glance.

As she stepped along, perplexed, I said, “Now it is within one yard of you.” She thought I was joking; but stooping down, determined not to be baffled, she espied it sheltered by a thin, mossy stone that stood up seven or eight inches above the turf, tilted at an angle of about that of one side of a house-roof. Under this the nest was tucked, sheltered from the sun and rain, and hidden from all but the sharpest eye.

THE END

